

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An internal combustion engine in which it is possible to set a period during which both an intake valve and an exhaust valve are closed from an exhaust stroke to an intake stroke,

wherein the engine includes a gas fuel injection valve capable of injecting gas fuel into the combustion chamber, a time for closing the exhaust valve is set to be at a timing on an advance side with respect to an intake top dead center, and the gas fuel injected from the gas fuel injection valve is pressurized together with a residual gas inside the combustion chamber during a period in which both the intake valve and the exhaust valve remain closed,

wherein a timing with which the gas fuel is injected from the gas fuel injection valve into the combustion chamber is immediately before the time for closing the exhaust valve or immediately after the time for closing the exhaust valve.

2. (Cancelled)

3. (Cancelled)

4. (Currently amended) An internal combustion engine according to Claim 1, wherein the internal combustion engine is a premixed compression ignition engine in which an air-gas fuel mixture prepared by previously mixing gas fuel with air is sucked into the combustion chamber.

5. (Currently Amended) An internal combustion engine according to Claim 1, wherein air mixed with no gas fuel is sucked into the combustion chamber, and wherein gas fuel for main combustion is also injected from the gas fuel injection valve.

6. (Currently Amended) An internal combustion engine according to Claim 1, wherein one of an amount of the gas fuel injected from the gas fuel injection valve and a timing with which the gas fuel is injected into the combustion chamber can be varied, and wherein the period during which both the intake valve and the exhaust valve remain closed is fixed.

7. (Original) An internal combustion engine according to Claim 1, wherein a time for opening the intake valve is set to be around the intake top dead center.

8. (Currently Amended) An internal combustion engine control device comprising:

a variable valve timing mechanism capable of varying opening/closing timing for an intake valve and an exhaust valve;

an intake/exhaust valve opening/closing timing control means for setting a time for closing the exhaust valve to be at a timing on an advance side with respect to an intake top dead center of a piston, and for controlling the variable valve timing mechanism such that there exists from an exhaust stroke to an intake stroke a period during which both the intake valve and the exhaust valve remain closed; and

a gas fuel injection valve capable of injecting gas fuel into a combustion chamber such that the injected gas fuel is pressurized together with a residual gas inside the combustion chamber during the period in which both the intake valve and the exhaust valve remain closed, wherein the gas fuel injection valve injects gas fuel into the combustion chamber at a timing immediately before the time for closing the exhaust valve or immediately after the time for closing the exhaust valve.

9. (Cancelled)

10. (Cancelled)

11. (Original) An internal combustion engine control device according to Claim 8, wherein the intake/exhaust valve opening/closing timing control means controls the variable valve timing mechanism such that a time for opening the intake valve is set around the intake top dead center.

12. (Currently Amended) An internal combustion engine control method that uses an internal combustion engine control device, the device comprising:

a variable valve timing mechanism capable of varying opening/closing timing for an intake valve and an exhaust valve;

an intake/exhaust valve opening/closing timing control means; and

a gas fuel injection valve,

wherein the intake/exhaust valve opening/closing timing control means sets a time for closing the exhaust valve to be at a timing on an advance side with respect to an intake top dead center of a piston, and for controlling the variable valve timing mechanism such that

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there exists from an exhaust stroke to an intake stroke a period during which both the intake valve and the exhaust valve remain closed, and

the gas fuel injection valve injects gas fuel into a combustion chamber at a timing immediately before the time for closing the exhaust valve or immediately after the time for closing the exhaust valve such that the injected gas fuel is pressurized together with a residual gas inside the combustion chamber during the period in which both the intake valve and the exhaust valve remain closed.